

REMARKS

Claims 23-43 were pending and stand rejected. Claims 34-41 have been cancelled. Claims 24-25 been amended. Claims 23-33 and 42-43 are pending upon entry of this amendment.

The drawings were objected to under 37 C.F.R. § 1.83(a) as not showing every feature of claims 34-40. Claims 34-40 were rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement. Claims 34-40 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Applicant respectfully traverses. Claims 34-40 have been cancelled.

Claims 24-25 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Claims 24-25 have been amended and are now definite.

Claims 23-33 and 42-43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamato in view of Hershler. Applicant respectfully traverses.

Claim 23 recites:

A method for quantifying asymmetry of joint angles of two limbs during a movement, comprising:

- determining a first set of data that comprises angles of a joint of a first limb as the first limb performs the movement;
- determining a second set of data that comprises angles of a joint of a second limb as the second limb performs a similar movement, wherein the two limbs comprise the first limb and the second limb;
- generating a cyclogram based on the first set of data and the second set of data; and
- determining a value of a characteristic of the generated cyclogram.

In the previous response, Applicant explained why neither Yamato nor Hershler, alone or in combination, discloses, teaches, or suggests the claimed element “generating a cyclogram based on the first set of data and the second set of data.”

It is axiomatic that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. In the present situation, there is no motivation because the references actually teach away from the proposed combination and modification. Specifically, Yamato in view of Hershler cannot be combined and modified to show the claimed element because Hershler teaches away from this combination and modification.

Hershler states that data is available for the hip and knee joints of both legs (p. 117). However, all of the angle-angle diagrams and accompanying analysis described in Hershler plot angle information for different joints of the same limb. For example, an angle-angle diagram in Hershler plots the right hip versus the right knee or the left hip versus the left knee (p. 118). That is, Hershler requires that an angle-angle diagram plot angle information for different joints of the same limb and teaches away from an angle-angle diagram that plots angle information for joints of different limbs.

The Examiner states “the incorporation of two types of data, i.e. two limbs, that are naturally expressed individually in the form of a cyclogram is well within the scope of the reference” (Detailed Action, p. 5). As mentioned above, all of the angle-angle diagrams and accompanying analysis described in Hershler plot angle information for different joints of the same limb. If data is collected from two limbs, then there would be four angles to plot for each moment in time: two angles from the first limb and two angles from the second limb. As recited in claim 1, a cyclogram is generated based on two sets of angles (i.e., one set from each limb), not four (i.e., two sets from each limb). Thus, incorporating data from two limbs in the form of a cyclogram is not within the scope of Hershler.

A cyclogram that plots angle information for joints of different limbs (as recited in the pending claims) can be used to analyze how symmetric a movement is with respect to different limbs. For example, walking should be symmetric with respect to the left leg and the right leg. In other words, the left leg and the right leg should perform exactly the same movements, although those movements will occur at different points in time.

A cyclogram that plots angle information for different joints of the same limb cannot be used in this way. This type of cyclogram is used for other purposes. For example, Hershler discusses using such a cyclogram to study unilateral osteoarthritis (i.e., osteoarthritis that affects only one side of the body) before treatment and after treatment (p. 110). Hershler also discusses using such a cyclogram to study the coordination between two joints during gait (p. 116).

Claim 23 is therefore patentable over Yamato and Hershler, alone and in combination.

Claims 42-43 recite similar language to claim 23 and are also patentable over Yamato and Hershler, alone and in combination, for at least the foregoing reasons.

Claims 24-33 depend from claim 23, which was shown to be patentable over Yamato and Hershler, alone and in combination. In addition, claims 24-33 recite other features not included in claim 23. Thus, claims 24-33 are patentable over Yamato and Hershler, alone and in combination, for at least the reasons discussed above, as well as for the elements that they individually recite.

Applicant respectfully submits that the pending claims are now allowable over the cited art of record and requests that the Examiner allow this case. The Examiner is invited to contact the undersigned in order to advance the prosecution of this application.

Respectfully submitted,
AMBARISH GOSWAMI

Dated: February 5, 2007

By: /Sabra-Anne R. Truesdale/

Sabra-Anne R. Truesdale, Reg. No. 55,687
Attorney for Applicant
FENWICK & WEST LLP
Silicon Valley Center
801 California Street
Mountain View, CA 94041
Tel.: (650) 335-7187
Fax: (650) 938-5200